USER MANUAL

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1. SAFEGUARDS

This equipment has been tested and found to comply with the limits for a class 'A' digital device for operation in commercial environment. For operation in residential property, you should purchase the proper equipment manufactured for residential use.

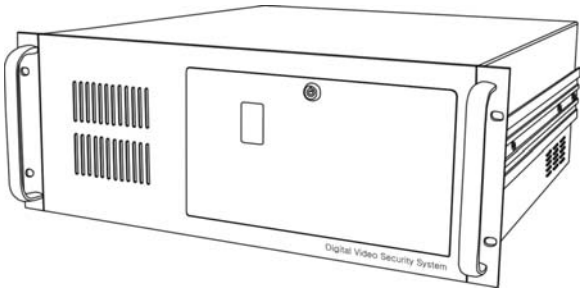
To reduce the risk of severe electric shock, injury, fire, damage to this equipment, and other harmful results, the following safeguards must be seriously considered.

- Do not install this equipment where it may be exposed direct sunlight.
- Do not install this equipment near heaters or coolers.
- Do not place any objects containing liquid on or near this equipment.
- Do not insert any objects, especially metallic or volatile objects, through the ventilation grill.
- Do not place heavy objects on this equipment.
- Be sure that power is plugged in securely.
- Do not spray water on this equipment when cleaning. Gently wipe the dry cloth.
- Do not use chemical detergents to clean this equipment. It may damage the surface.
- If smoke or burning scent is detected, immediately unplugged the power cord.
- Do not touch the power cord with wet hands. It may cause severe electric shock.
- Do not pull on the power cord to unplug.
- Do not install this equipment where it may be exposed to moisture .
- Do not cause heavy impact such as dropping objects on this equipment.
- Do not install this equipment where vibration is severe or near magnetic objects.
- Do not install this equipment in severely cold environment.
- Do not disassemble this equipment.
- This equipment is heavy. Be careful when moving this equipment.
- Be sure to remove dust build up from the filter at least once a month.
- It is advisable to backup important data promptly.
- When connecting external components, be sure to use proper cables.

2. INSTALLING

2.1 CONTENTS
2.2 FRONT PANEL
2.3 REAR PANEL
2.4 CONNECTION

2.1 CONTENTS



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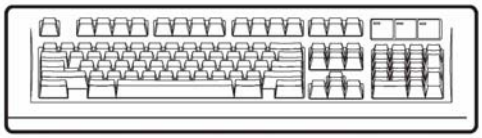

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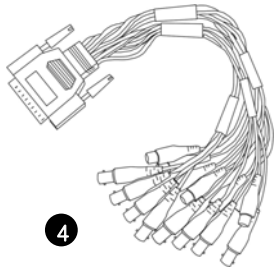

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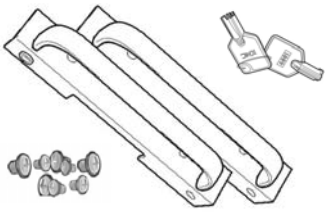

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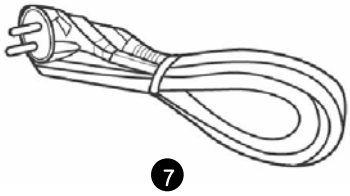

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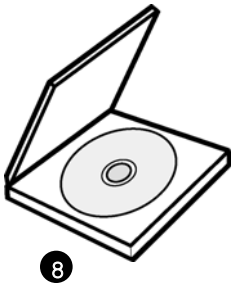
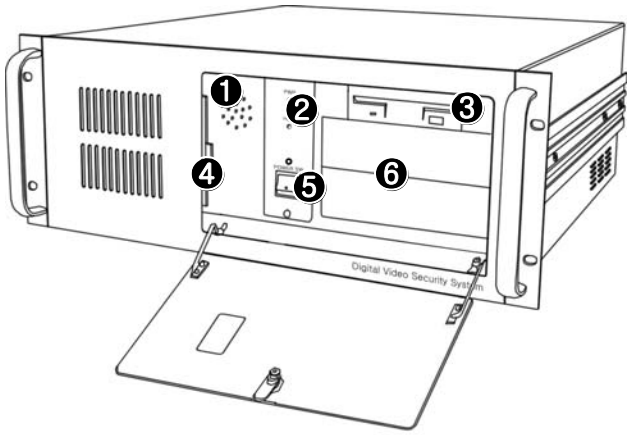


❽

❶	DVR
❷	USER MANUAL
❸	KEY BOARD
❹	AV CABLE
❺	HANDLE, SCREWS, AND KEYS
❻	MOUSE
❼	POWER CABLE
❽	REMOTE SOFTWARE CD

2.2 FRONT PANEL



❶	SPEAKER	❹	FILTER
❷	POWER & HDD LED	❺	POWER SWITCH
❸	FLOPPY DISK DRIVE	❻	PC Slot (CD-RW, HDD)

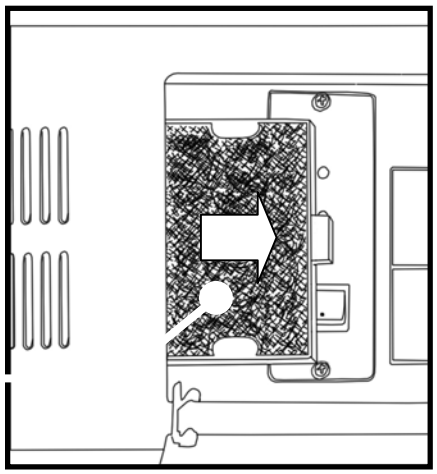
✓ CHANGING THE FILTER

THE FILTER IS LOCATED BEHIND THE LEFT SIDE OF FRONT PANEL. THE FILTER RESTRICTS DUST FROM FLOWING INTO THE SYSTEM WITH AIR INFLOW.

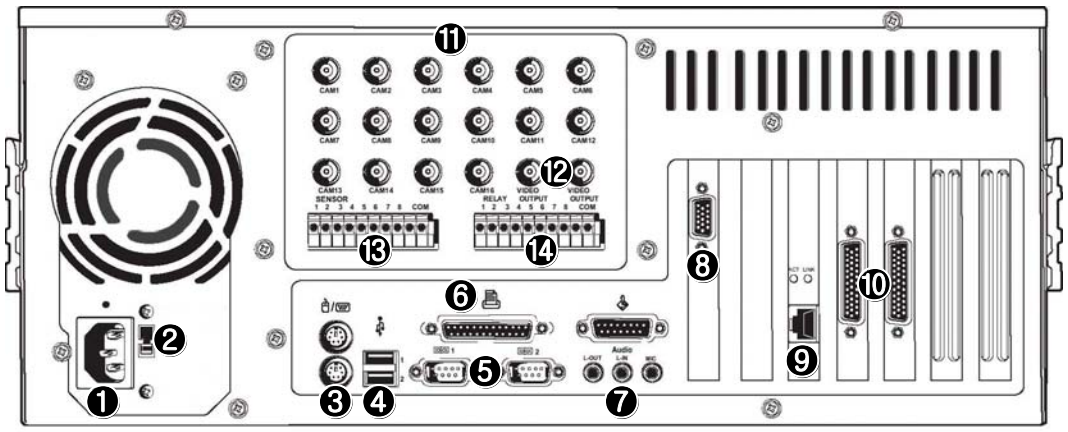
DUST BUIL UP MUST BE REMOVED FROM THE FILTER AT LEAST ONCE A MONTH.

HOW TO CHANGE THE FILTER:

1. AS SHOWN IN THE DIAGRAM TO THE RIGHT, SLIDE THE FILTER GUIDE IN THE DIRECTION OF THE ARROW.
2. IF CHANGING WITH A NEW FILTER, REPLACE THE NEW FILTER ON THE GUIDE AND SLIDE IN THE OPPOSITE DIRECTION OF THE ARROW
3. OR, REMOVE DUST FROM THE FILTER, REPLACE THE FILTER ON THE GUIDE, THEN SLIDE THE GUIDE IN THE OPPOSITE DIRECTION OF THE ARROW.

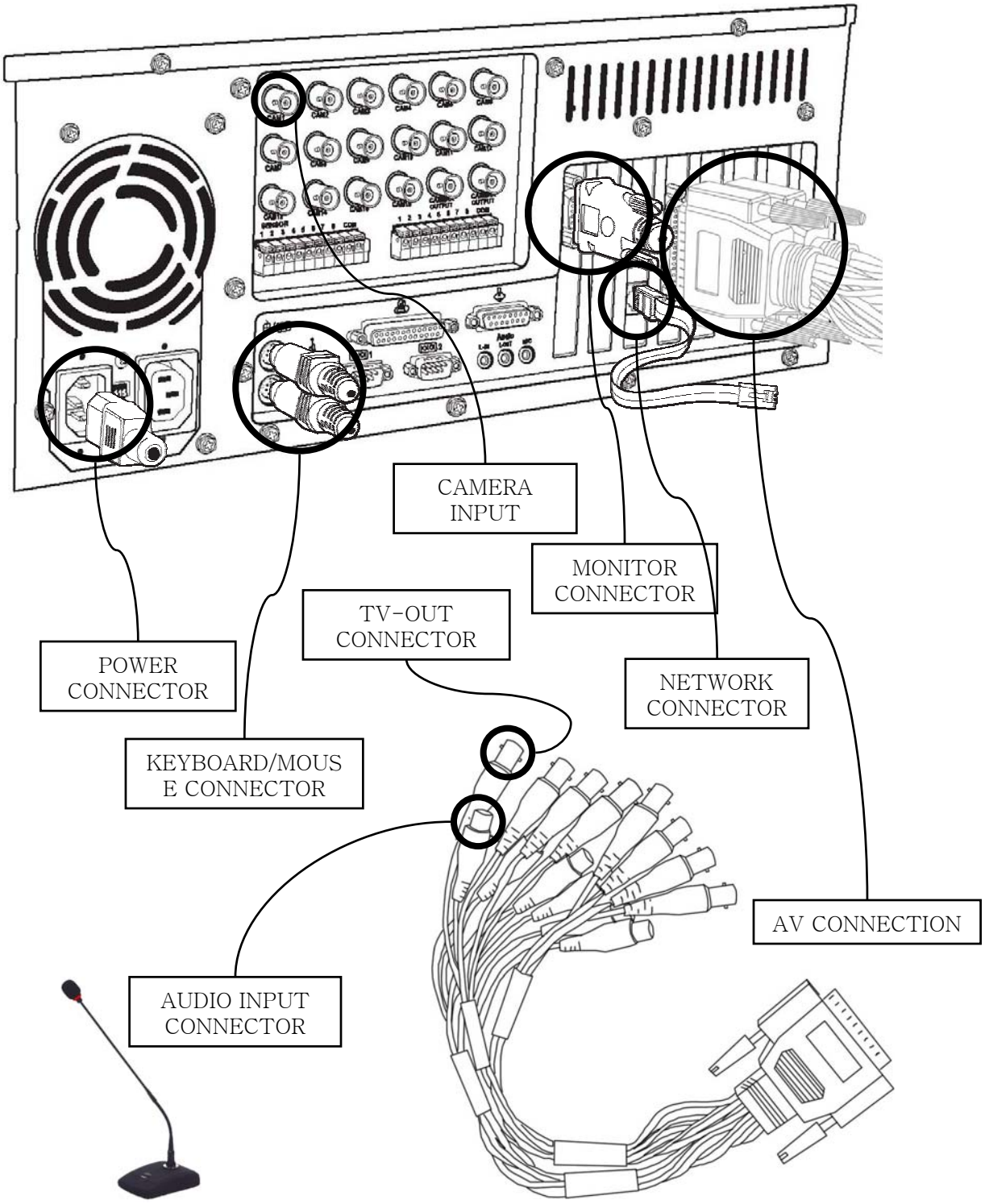


2.3 REAR PANEL

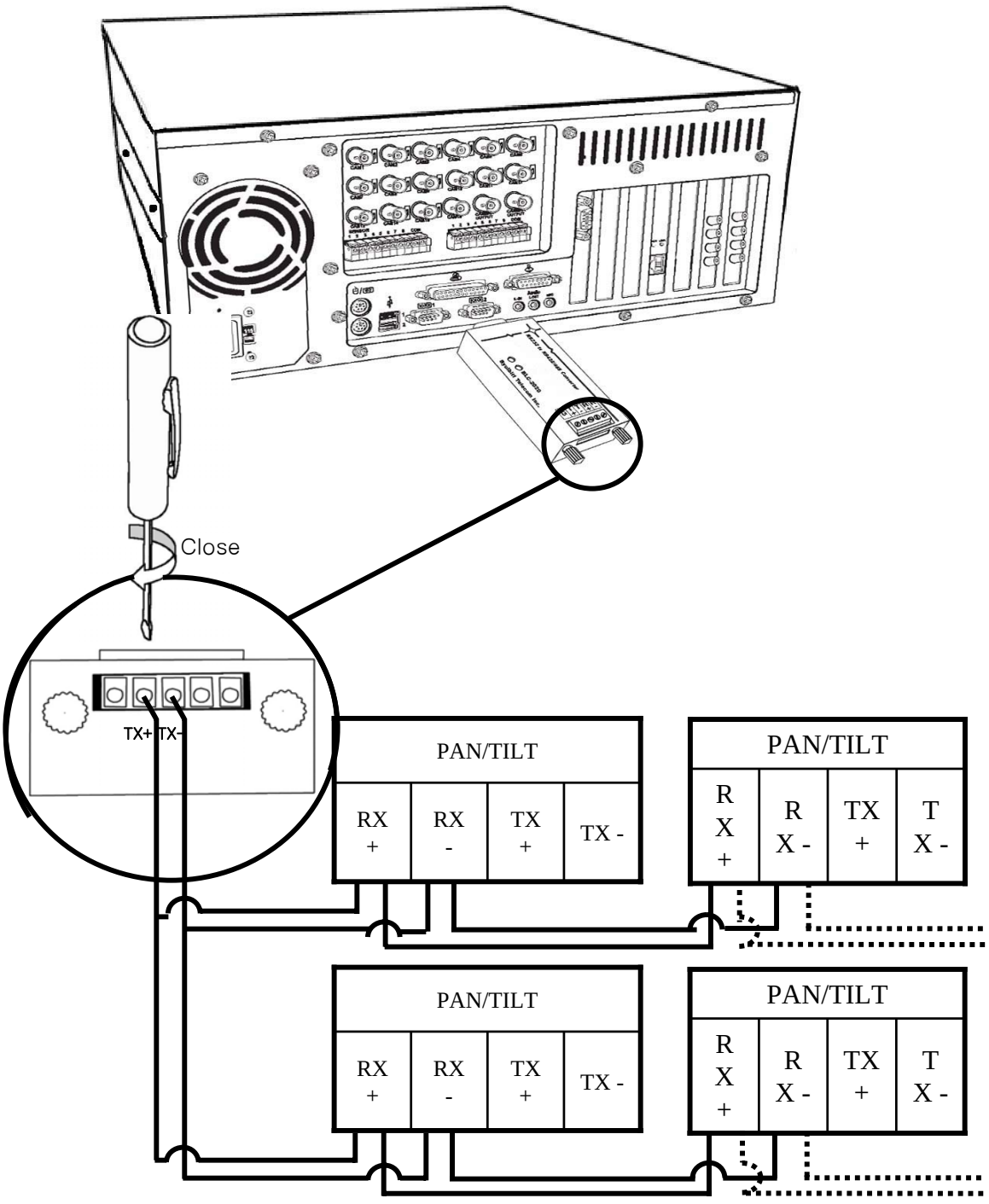


❶ POWER CONNECTOR
❷ VOLTAGE SWITCH
❸ KEY BOARD/MOUSE CONNECTOR
❹ USB CONNECTOR
❺ COM1/COM2 PTZ CONNECTOR
❻ PRINTER CONNECTOR
❼ SPEAKER (L-OUT) CONNECTOR
❽ MONITOR CONNECTOR
❾ NETWORK CONNECTOR
❿ RCA CAMERA/AUDIO INPUT
⓫ CAMERA INPUT
⓬ SPOT OUTPUT
⓭ SENSOR CONNECTOR
⓮ RELAY CONNECTOR

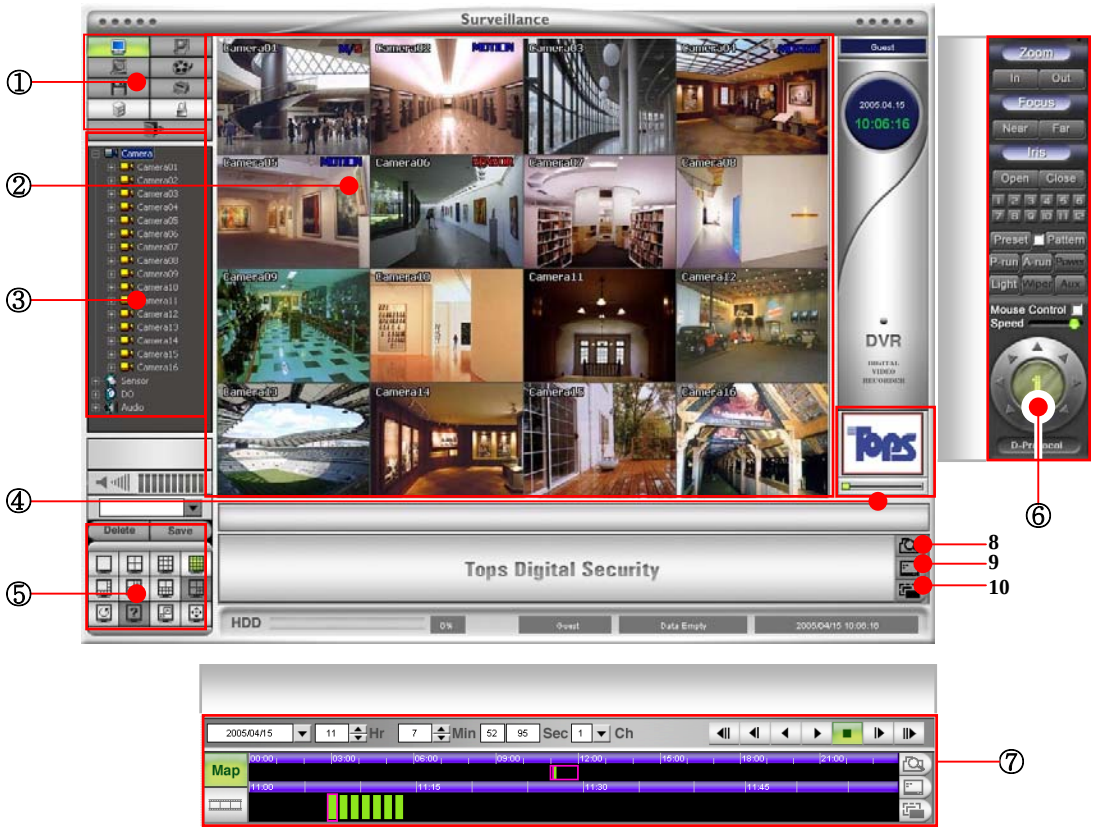
2.4
CONNECTING



2. 5 PAN/TILT Camera Connection



MAIN SCREEN



① MAIN MENU

② LIVE VIEW

③ CHANNEL CONTROLLER (CAMERA, SENSOR, D/O, AUDIO)

④ PANNING VIEW

⑤ CAMERA OPTIONS

⑥ PAN/TILT (PTZ CONTROL WINDOW WILL DIPLAY WHEN THE PTZ PROTOCOL IS ASSIGNED TO A CHANNEL)

⑦ SEARCH

⑧ One Channel Search

⑨ Smart Search

⑩ All Channel Map

3. SURVEILLANCE

3.1 MAIN MENU

3.2 USER LOG IN

3.3 CHANGING PASSWORD

3.4 SURVEILLANCE SCREEN

3.5 CHANNEL SELECTION

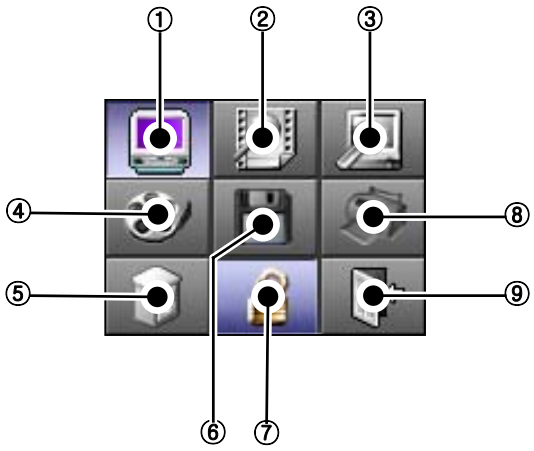
3.6 PANNING VIEW

3.7 CAMERA OPTION

3.8 BACK UP

3.9 PAN/TILT

3.1 MAIN MENU



① GOTO SURVEILLANCE MODE
② GOTO SEARCH MODE
③ GOTO SETUP MODE
④ GOTO BACKUP MODE
⑤ ENTER USER PASSWORD TO GOTO SETUP MODE
⑥ GOTO AVI BACKUP MODE (ALSO IN SEARCH MODE)
⑦ GOTO USER LEVEL MODE (LOG IN / LOG OUT)
⑧ GOTO PRINT MODE (ALSO IN SEARCH MODE)
⑨ SYSTEM SHUTDOWN

3.2 USER LOG IN

① USER NAME – SELECT PRE-REGISTERED USER

② PASSWORD – ENTER PASSWORD

③ KEY PAD (0~9, RESET, DEL)

④ OK – CONFIRM LOG IN

⑤ CANCEL – CANCEL LOG IN

EACH USER MUST LOG-IN IN ORDER TO ACCESS THE MODES AND CAMERAS ASSIGNED TO EACH LEVEL OF USER.

ADMINISTRATOR HAS ACCESS TO ALL MODES AND FUNTIONALITIES.

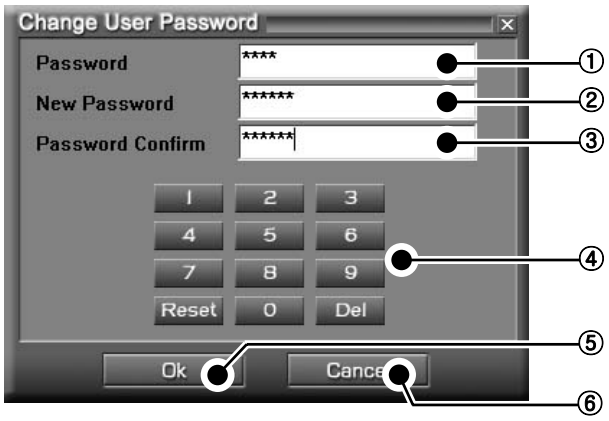
ADMINISTRATOR CONFIGURES THE ACCESS TO THE MODES AND FUNTIONALITIES FOR EACH LEVEL USER.

IF YOU DON'T HAVE A USER NAME, CONSULT WITH YOUR ADMINISTRATOR.

3.3 CHANGING PASSWORDS

- CHANGEPWD – CHANGE USER PASSWORD
- LAYOUT ROTATE TIME – CHANGE DWELL TIME
- EXTERNAL MONITOR ROTATION TIME – CHANGE DWELL TIME ON SPOT MONITOR

✓ Change PWD



① PASSWORD – ENTER CURRENT PASSWORD

② NEW PASSWORD – ENTER NEW PASSWORD

③ CONFIRM NEW PASSWORD

④ KEY PAD (0~9, RESET, DEL)

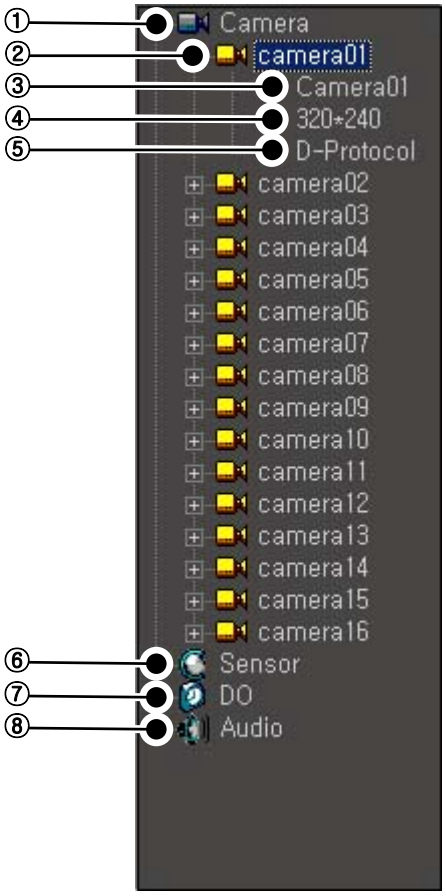
⑤ OK – CONFIRM

⑥ CANCEL

3.4 SURVEILLANCE MODE

① CAMERA NAME
② LIVE VIEW IMAGE
③ AUDIO INPUT INDICATOR ON RELATED CAMERA
④ RECORDING BASE
(NORMAL, MOTION, SENSOR, M/S, PRE)
⑤ CHANNEL DIVISION LINES

3.5 CAMERA SELECTION



① CAMERA-DRAG THE BUTTON TO DESIRED SCREEN. ALL CAMERAS WILL BE DISPLAYED IN NUMBERED ORDER STARTING FROM THE SCREEN THE BUTTON IS DROPPED ON

② CAMERA01-DRAG THE BUTTON TO THE DESIRED SCREEN. RIGHT CLICK FOR CHANNEL INFO AND SPOT MONITOR ON/OFF SWITCH.

③ CAMERA NAME FOR CAMERA-01

④ SELECTED RESOLUTION FOR CAMERA-01

⑤ SELECTED PAN/TILT PROTOCOL FOR CAMERA-01

⑥ SENSOR INDICATOR (INDICATES SENSOR ACTIVITY)

⑦ DIGITAL OUT
(INDICATES DIGITAL OUT ACTIVATION-RIGHT CLICK TO TURN OFF)

⑧ AUDIO (AUDIO OPTION – RIGHT CLICK TO TURN ON/OFF)

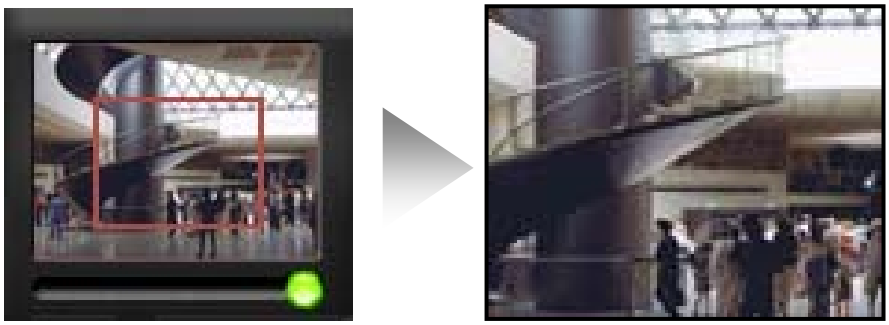
3.6 PANNING VIEW

THIS FEATURE IS AVAILABLE FOR SINGLE CHANNEL VIEW ONLY.

① POINT BOX (MOVE THE SCREEN WITH THE MOUSE)

② POINT CONTROL BAR (RESIZE THE SCREEN WITH MOUSE)

③ PANNING VIEW

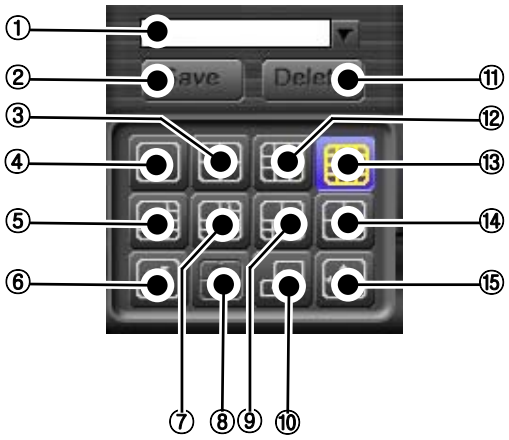


PANNING VIEW IMAGE

MOVE THE POINT BOX BY DRAGGING POINTER

PANNING VIEW IMAGE

3.7 CAMERA VIEW OPTIONS



① USER SELECTED CAMERA(S)

② SAVE USER SELECTED CAMERA(S)

③ 4 CAMERA VIEW SELECTION

④ SINGLE CAMERA VIEW SELECTION

⑤ 1 MAIN SCREEN + 7 SUB-SCREEN VIEW

⑥ SEQUENTIAL CAMERA ROTATION

⑦ 1 MAIN SCREEN AND 12 SUB-SCREEN VIEW

⑧ USER SELECTED CAMERA VIEW (FUNTIONAL IN SEARCH MODE ONLY. DRAG AND DROP THE CHANNEL TO DESIRED SCREEN)

⑨ 2 MAIN SCREEN AND 8 SUB-SCREEN VIEW

⑩ MOTION ROTATION/POPUP – DISPLAYS CAMERAS DETECTING MOTION ONLY

⑪ DELETED USER SELECTED CAMERAS

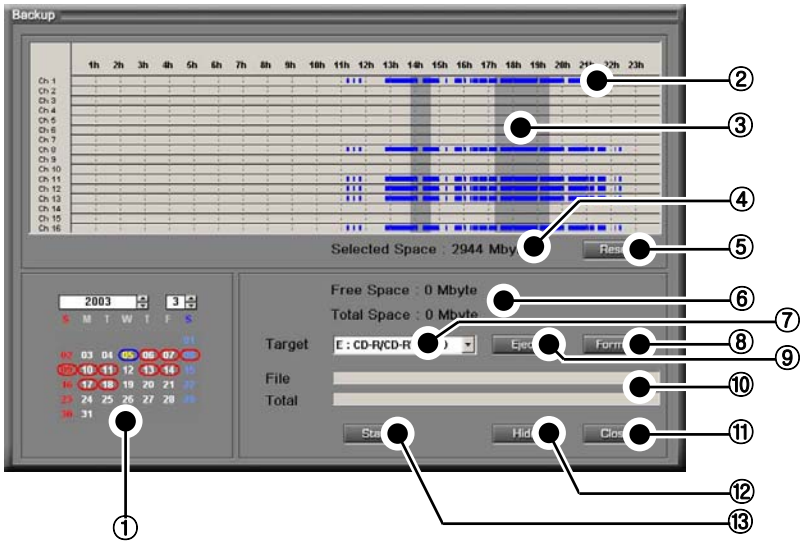
⑫ 9 CAMERA VIEW SELECTION

⑬ 16 CAMERA VIEW SELECTION

⑭ 3 MAIN SCREEN AND 4 SUB-SCREEN VIEW

⑮ FULL SCREEN VIEW

3.8 BACKUP



① CALENDAR (DATE SELECTION)

② VIDEO MAP (BLUE)

③ BACKUP DATA (GRAY – SELECT THE DATA TIME FRAME BY DRAG THE GRAY HIGHLIGHT

④ SELECTED SPACE – BAKUP DATA SIZE INDICATOR

⑤ RESET – CANCEL SELECTED BACKUP DATA

⑥ FREE SPACE – AVAILABLE SPACE ON BACKUP MEDIA

⑦ TOTAL SPACE – TOTAL SPACE ON BACKUP MEDIA

⑧ FORMAT – FORMAT BACKUP MEDIA

⑨ EJECT – EJECT BACKUP MEDIA

⑩ BACKUP PROGRESS INFO (FILE/TOTAL)

⑪ CLOSE – CLOSE BACKUP WINDOW

⑫ HIDE – HIDE BACKUP WINDOW

⑬ START/STOP – START/STOP BACKUP

BACKUP IS USED TO SAVE NECESSARY RECORDED DATA.
IF REMOVABLE BACKUP DEVICE IS USED, MAKE SURE TO SET THE DRIVE AS BACKUP IN THE SETUP MODE
* RECOMMENDED BACKUP MEDIA

- HDD
- CD-RW (DIRECT CD 5.0 OR HIGHER VERSION REQUIRED)
- DVD-RW (DIRECT CD 5.0 OR HIGHER VERSION REQUIRED)
- USB-MEMORY HDD
- USB-HDD

✓ MEDIA FORMAT

INSERT MEDIA → SELECT TARGET DRIVE → START FORMAT

✓ BACKUP

SELECT DATE IN CALENDAR → SELECT TIME FRAME IN THE VIDEO MAP (SELECT BY DRAGGING THE HIGHLIGHT) → SELECT TARGET DRIVE → START

✓ STOP BACKUP

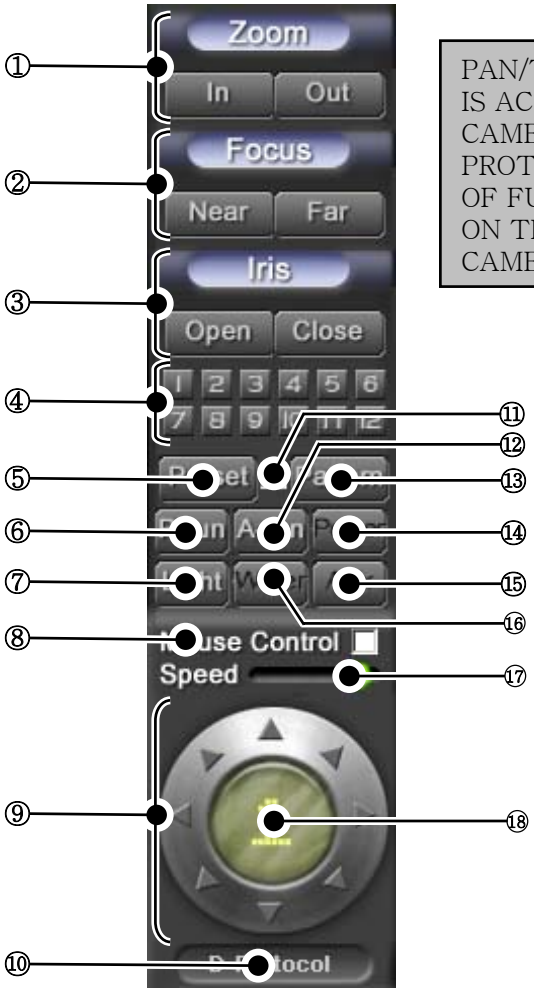
WIHLE BACKUP IS IN PROCESS → CLICK STOP

✓ HIDE

WHILE BACKUP IS IN PROCESS → CLICK HIDE

IF REMOVABLE HDD IS USED AS RECORDING MEDIA, MAKE SURE TO SET THE DRIVE AS DATA DRIVE IN THE SETUP MODE

3.9 PAN/TILT



PAN/TILT CONTROL WINDOW IS ACCESIBLE ONLY ON CAMERAS WITH PAN/TILT PROTOCOL ASSIGNED. LEVEL OF FUNCTIONALITY DEPENDS ON THE PROTOCOL OF THE CAMERA.

① ZOOM (IN/OUT)

② FOCUS (NEAR/FAR)

③ IRIS (OPEN/CLOSE)

④ 1~12 – PRESET AREA NUMBERS

⑤ PRESET – PRESET SETUP

⑥ P-RUN – PRESET RUN ON/OFF (PRESET MUST BE 'ON')

⑦ LIGHT ON/OFF

⑧ MOUSE CONTROL – CONTROL THE CAMERA MOVEMENT BY DRAGGING THE MOUSE ON THE SCREEN

⑨ CAMERA DIRECTION CONTROL BUTTONS

⑩ SELCECTED PAN/TILT CAMERA INDICATOR

⑪ SAVE PRESET SETUP

⑫ A-RUN – AUTORUN FROM POINT TO POINT

⑬ PATTERN – CAMERA AUTOMATICALLY MOVES IN SET PATTERN

⑭ CAMERA POWER ON/OFF

⑮ AUX – AVAILABLE ADDITIONAL FUNCTIONS DEPEDNING ON THE CAMERA

⑯ WIPER ON/OFF

⑰ SPEED – ADJUST THE SPEED OF THE PAN/TILT

⑱ SELECTED CHANNEL

■ PRESET

THE CAMERA AUTOMATICALLY MOVES WITHIN AND UP TO 12 PRESET LOCATIONS

✓ Preset SETUP

PRESET SETUP (CHECK 'ON') → Preset (CLICK 'ON') → LOCATE THE CAMERA TO DESIRED AREA THEN Zoom IF NEEDED → CLICK THE PRESET LOCATION NUMBER (1~12) → LOCATE THE CAMERA TO DESIRED AREA THEN Zoom IF NEEDED → CLICK THE PRESET LOCATION NUMBER (1~12) → REPEAT FOR MORE PRESET LOCATIONS → PRESET SETUP (CHECK 'OFF')

✓ PRESET DELETE

PRESET (CLICK ON) → CLICK THE PRESET LOCATION NUMBER TO DELETE (1~12)

✓ PRESET RUN

P-RUN (CLICK ON)

■ PATTERN
THE CAMERA AUTOMATICALLY MOVES TO AREAS IN ORDER MEMORIZED DURING PATTERN SETUP

✓ PATTERN SET UP

PRESET SAVE (CHECK ON) → PATTERN (CLICK ON) → MAUNUALLY MOVE THE CAMERA (THE PATTERN MEMORIZES THE EXACT CAMERA MOVEMENT WHILE PATTERN IS 'ON') → PRESET SAVE (CHECK OFF)

✓ PATTERN RUN

PATTERN (CLICK ON)

■ MOUSE CONTROL
THIS FUNCTION IS USED FOR EASIER MANUEVER OF THE PTZ CAMERA.

✓ USING MOUSE CONTROL

MOUSE CONTROL (CHECK ON) → MOVE THE MOUSE POINTER TO THE RELATED CAMERA SCREEN → LEFT CLICK ON MOUSE → MOVE THE POINTER IN DESIRED DIRECTION

4. SEARCH

4.1 SEARCH MODE AND PLAYBACK CONTROL

4.2 SEARCH SCREEN

4.3 SINGLE CHANNEL SEARCH

4.4 SMART SEARCH

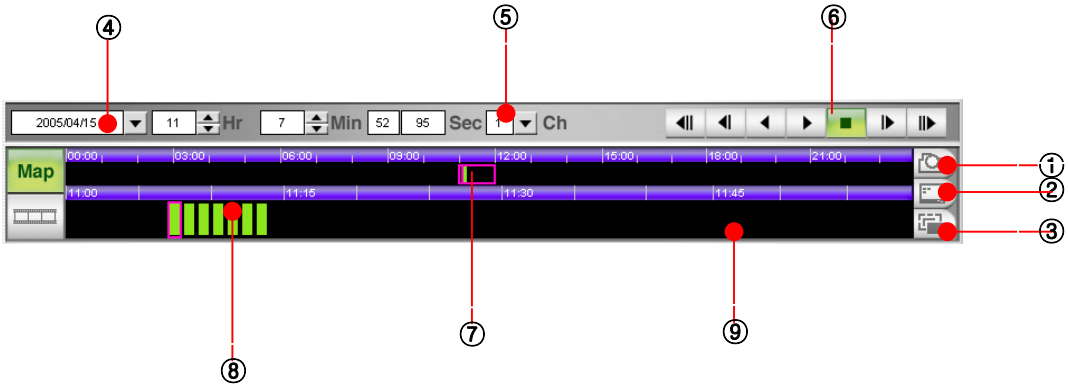
4.5 MAP SEARCH

4.6 DISK BACKUP

4.7 AVI BACKUP

4.8 PRINT

4.1 SEARCH AND PLAYBACK CONTROL



① 1 CHANNEL SEARCH

② SMART SEARCH

③ MAP SEARCH

④ CALENDAR, HOUR/MINUTE INDICATOR AND ADJUST BUTTON

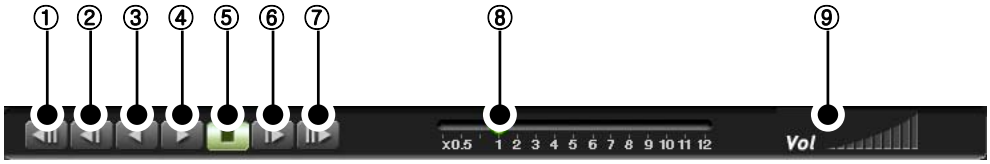
⑤ CHANNEL INDICATOR AND SELECTOR

⑥ PLAYBACK IN PANORAMA VIEW

⑦ SEARCH BY VIDEO MAP

⑧ 1 DAY VIDEO MAP

⑨ VIDEO MAP / PANRAMA VIEW INDICATOR



① FIRST IMAGE (1 DAY)

② FRAME BY FRAME REVERSE

③ REVERSE

④ PLAY

⑤ STOP

⑥ FRAME BY FRAME FORWARD

⑦ LAST IMAGE (1 DAY)

⑧ PLAYBACK SPEED

⑨ VOLUME CONTROL

4.2 SEARCH MODE

① CAMERA NAME

② RECORDING BASE INDICATOR (NORMAL, MOTION, SENSOR, M/S)

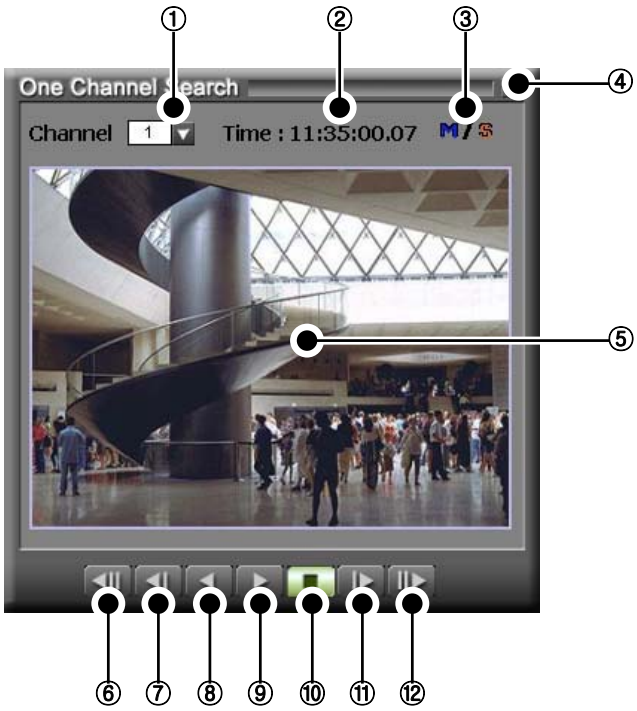
③ PLAYBACK IMAGE

④ DATE/TIME OF PLAYBACK IMAGE

⑤ PRE-ALARM RECORDING INDICATOR (PRE)

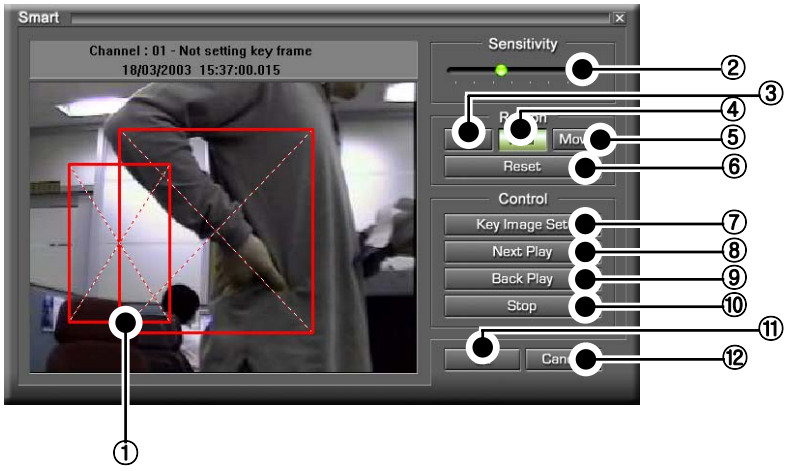
⑥ CHANNEL DIVISION LINES

4.3 SINGLE CHANNEL SEARCH



① CAMERA SELECTION
② TIME OF PLAYBACK IMAGE
③ RECORDING BASE
④ CLOSE WINDOW/EXIT SINGLE CHANNEL SEARCH
⑤ PLAYBACK IMAGE
⑥ FIRST IMAGE (1 DAY)
⑦ FRAME BY FRAME REVERSE
⑧ REVERSE
⑨ PLAY
⑩ STOP
⑪ FRAME BY FRAME FORWARD
⑫ LAST IMAGE (1 DAY)

4.4 SMART SEARCH



① KEY AREA

② SENSITIVITY – ADJUST BAR

③ FULL – FULL SCREEN

④ ADD – ADD KEY AREA (CLICK AND DRAG MOUSE)

⑤ MOVE – MOVE KEY AREA (CLICK ON KEY AREA AND DRAG MOUSE)

⑥ RESET – RESET KEY AREA

⑦ KEY IMAGE SET – SET KEY AREA

⑧ NEXT PLAY

⑨ BACK PLAY

⑩ STOP

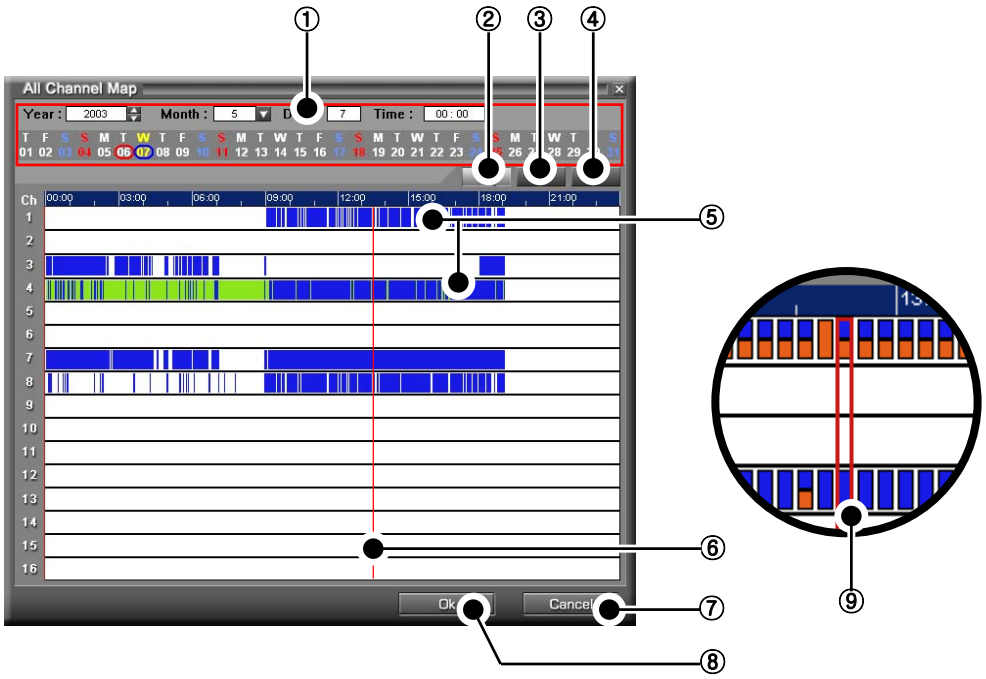
⑪ OK

⑫ Cancel – END SMART SEARCH

SMART SEARCH IS USEFUL WHEN SEARCHING FOR CHANGE IN IMAGE IN A KEY AREA.

REGION (FULL/ADD/MOVE-SET KEY AREA) → KEY IMAGE SET → NEXT PLAY

4.5 MAP SEASRCH



① Calendar – INDICATES DATES WITH DATA

② DETAIL MAP / SHOW ENTIRE MAP

③ VIEW PREVIOUS FRAME IN DETAIL MAP

④ VIEW NEXT FRAME IN DETAIL MAP

⑤ RECORDING BASE INDICATOR
(NORMAL – GREEN, MOTION – BLUE, SENSOR – ORANGE)

⑥ TIME SELECTION (SELECT CLICKING WITH MOUSE)

⑦ CLOSE THE MAP WINDOW

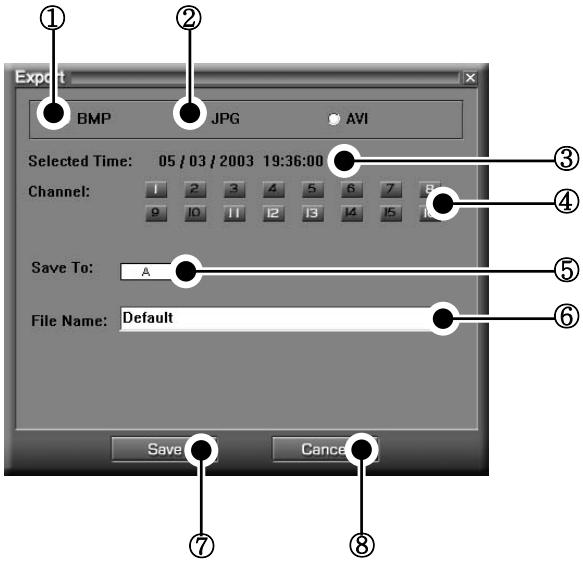
⑧ GOTO SELECTED TIME FRAME

⑨ DETAIL MAP

THIS FEATURE IS USEFUL TO OVERVIEW RECORDING METHOD AND TIME FRAME

CALENDAR (SELECT DATE) → SELECT TIME IN DETAIL MAP → OK → PLAY

4.6 DISK BACKU



① BMP – BMP FORMAT IMAGE

② JPG – JPG FORMAT IMAGE

③ SELECT TIME – RECORDED DATE/TIME OF IMAGE TO SAVE

④ CHANNEL – CHANNEL SELECTION

⑤ SAVE TO: – TARGET DRIVE

⑥ FILE NAME

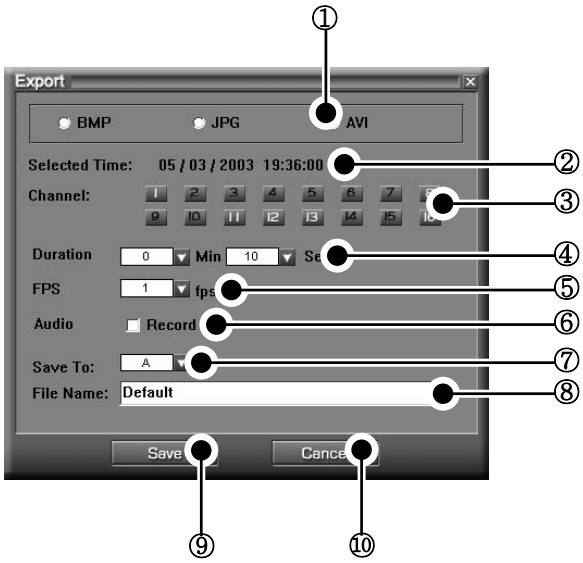
⑦ SAVE

⑧ CANCEL

DISK BACKUP IS USED TO SAVE RECORDED IMAGE(S) TO BACKUP DISK

CHOOSE FILE TYPE (BMP OR JPG) → SELECT CHANNEL → SELECT TARGET DRIVE → ENTER FILE NAME → SAVE

4.7 AVI BACKU



① AVI – AVI FORMAT IMAGE

② SELECT TIME

③ CHANNEL – ONE CHANNEL PER BACKUP

④ DURATION – BACKUP DURATION (MIN, SEC)

⑤ FPS – BACK FRAME SPEED

⑥ AUDIO – SYNCHRONIZE AUDIO BACKUP ON/OFF

⑦ SAVE TO: – TARGET DRIVE

⑧ FILE NAME

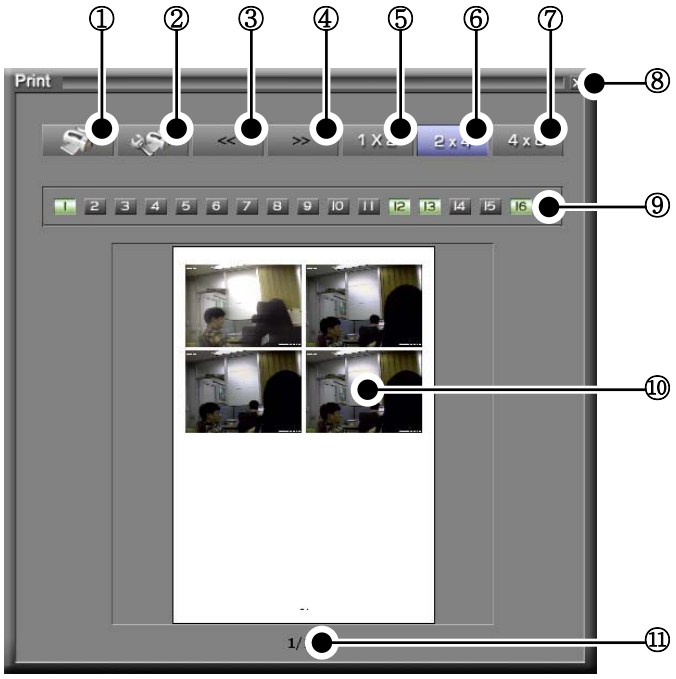
⑨ SAVE

⑩ CANCEL

THIS FEATURE IS USEFUL TO BACKUP PLAYBACK IMAGE(S).

IMAGE FILE FORMAT(AVI) → SELECT CHANNEL → SET DURATION) → BACKUP SPEED (FPS) → SELECT TARGET DRIVE → ENTER FILE NAME OR USE DEFAULT → SAVE

4.8 PRINT



① PRINT

② PRINTER SETUP

③ PREVIOUS PAGE

④ NEXT PAGE

⑤ PRINT UP TO 2 IMAGES ON A4 PAPER

⑥ PRINT UP TO 8 IMAGES ON A4 PAPER

⑦ PRINT UP TO 32 IMAGES ON A4 PAPER

⑧ CANCEL PRINT/CLOSE WINDOW

⑨ CHANNEL SELECTION

⑩ PRINT PREVIEW

⑪ PREVIEW PAGE TO PRINT

THE PRINTER DRIVER MUST BE INSTALLED IN THIS EQUIPMENT BEFORE YOU CAN PRINT.

BE SURE THE PRINTER IS PROPERLY CONNECTED TO THIS EQUIPMENT AND THE POWER IS ON.

THIS FEATURE IS USED TO PRINT RECORDED IMAGE(S)

PRINTER SETUP → SELECT LAYOUT (1x2, 2x4, 4x8) → SELECT CHANNEL → PRINT

5. SETUP

5.1 CAMERA/SENSOR

5.2 SCHEDULE

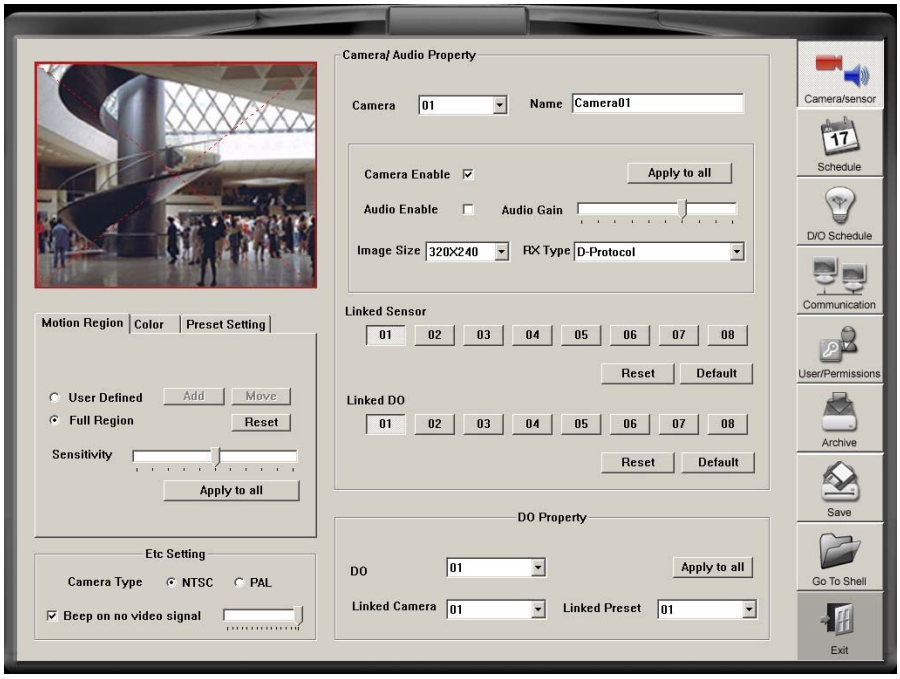
5.3 D/O SCHEDULE

5.4 COMMUNICATION

5.5 USER/PERMISSIONS

5.6 ARCHIVE

5. SETUP



CAMERA/SENSOR - SETUP CAMERA AND AUDIO INPUT.

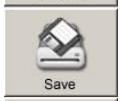
SCHEDULE - SETUP RECORDING SCHEDULE.

D/O SCHEDULE - SETUP D/O SCHEDULE.

COMMUNICATION - SETUP NETWORK CONFIGURATION.

USER/PERMISSIONS - SET USER LO-IN AND PASSWORD.

ARCHIVE - SETUP BACK UP DEVICE AND SCHEDULE.

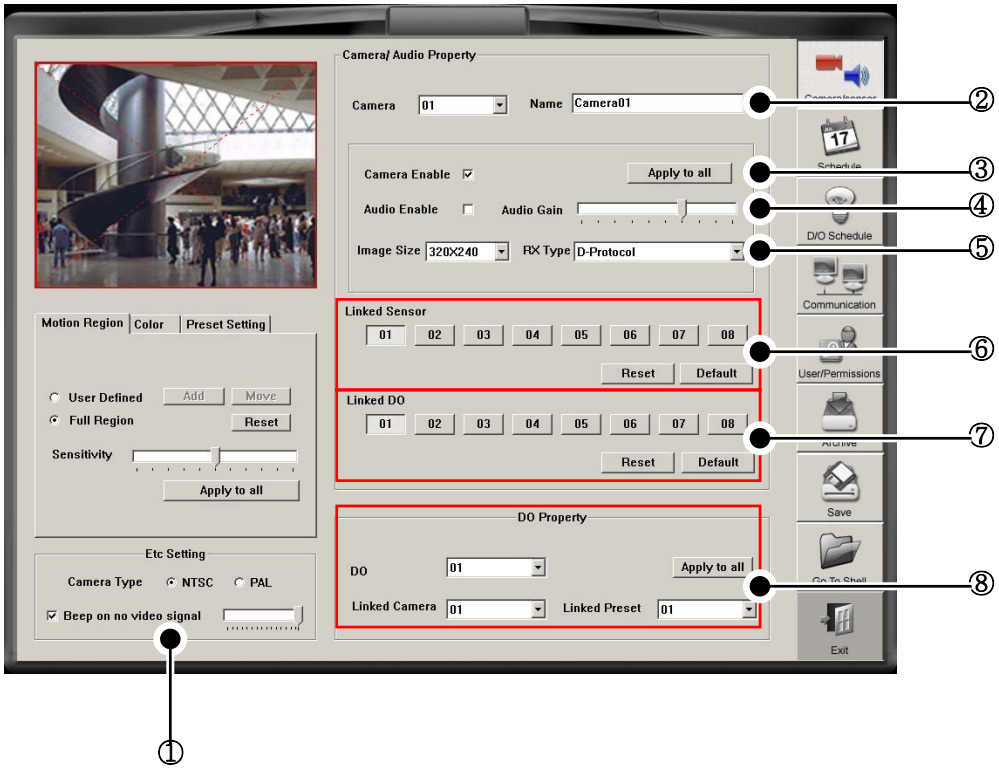


SAVE – SAVE SETUP.

GO TO SHELL.

EXIT – SAVE SETUP AND GOTO TO SURVEILLANCE MODE

5.1 CAMERA/SENSOR



① CAMERA TYPE - (NTSC/PAL)
BEEP ON NO VIDEO SIGNAL

② CAMERA SELECTION AND CHANGE CAMERA NAME

③ CAMERA ENABLE/DISABLE / APPLY TO ALL

④ AUDIO ENABEL/DISABLE / AUDIO GAIN ADJUST BAR

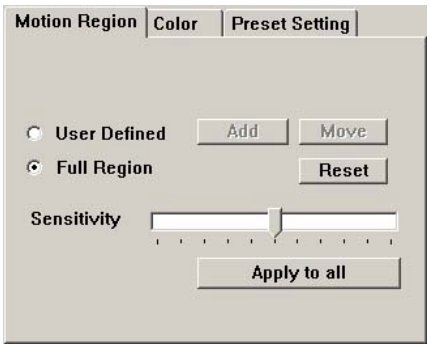
⑤ RECORDING RESOLUTION (320X240,640X480) / PTZ RX SETUP

⑥ SENSOR SETUP

⑦ DIGITAL OUT SETUP

⑧ SET LINKED CHANNELS AND PRESET TO DIGITAL OUT

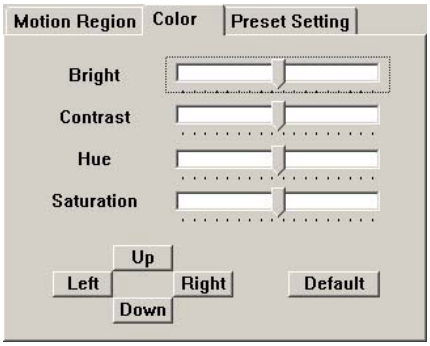
✓ MOTION REGION



SETUP MOTION DETECTION AREA

- USER DEFINED – DETECT MOTION IN DEFINED AREA ONLY
- FULL REGION – DETECT MOTION IN ENTIRE AREA
- ADD/MOVE
- RESET
- SENSITIVITY
- APPLY TO ALL

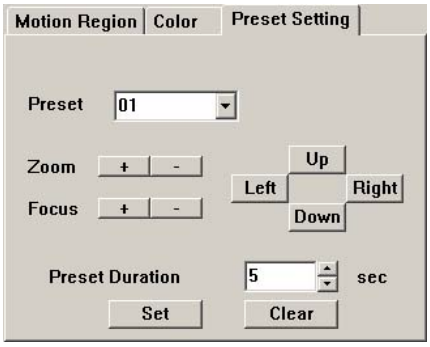
✓ COLOR



CAMERA SETUP

- BRIGHT
- CONTRAST
- HUE
- SATURATION
  UP/DOWN/LEFT/RIGHT
- DEFAULT

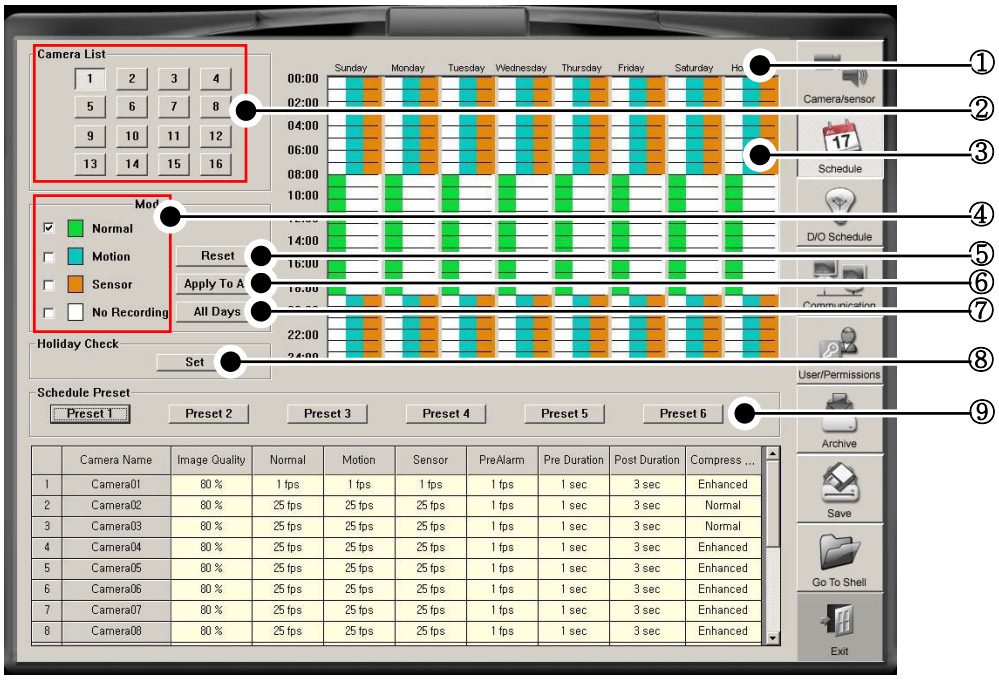
✓ PRESET SETTING



PRESET SETUP

- PRESET
- ZOOM
- FOCUS
- UP/DOWN/LEFT/RIGHT – PTZ CONTROL
- PRESET DURATION
- SET/CLEAR

5.2 SCHEDULE



	Camera Name	Image Quality	Normal	Motion	Sensor	PreAlarm	Pre Duration	Post Duration	Compress ...
1	Camera01	80 %	1 fps	1 fps	1 fps	1 fps	1 sec	3 sec	Enhanced
2	Camera02	80 %	25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Normal
3	Camera03	80 %	25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Normal
4	Camera04	80 %	25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Enhanced
5	Camera05	80 %	25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Enhanced
6	Camera06	80 %	25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Enhanced
7	Camera07	80 %	25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Enhanced
8	Camera08	80 %	25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Enhanced

① DAY INDICATOR (SUNDAY, MONDAY, TUESDAY, WEDNESDAY, FRIDAY, SATURDAY, HOLIDAY)

② CAMERA LIST - CAMERA SELECTION (1~16)

③ SET RECORDING SCHEDULE (DRAG MOUSE TO SETUP)

④ MODE – SELECT RECORDING BASE (NORMAL, MOTION, SENSOR, NO RECORDING)

⑤ RESET – RESET RECORDING SCHEDULE

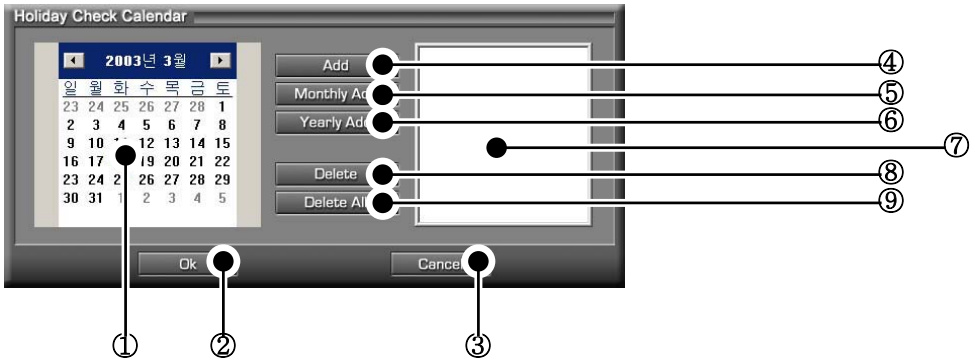
⑥ APPLY TO ALL

⑦ ALL DAYS

⑧ HOLIDAY CHECK (SET)

⑨ SCHEDULE PRESET (PRESET1~PRESET6)- RECORDING GROUP SETUP

✓ HOLIDAY CHECK



① CALENDAR

② OK – SAVE SETUP

③ CANCEL – CANCEL SETUP

④ ADD – ADD HOLIDAY (SELECT DATE IN CALENDAR)

⑤ MONTHLY ADD – ADD MONTHLY HOLIDAY (SELECT DATE IN CALENDAR)

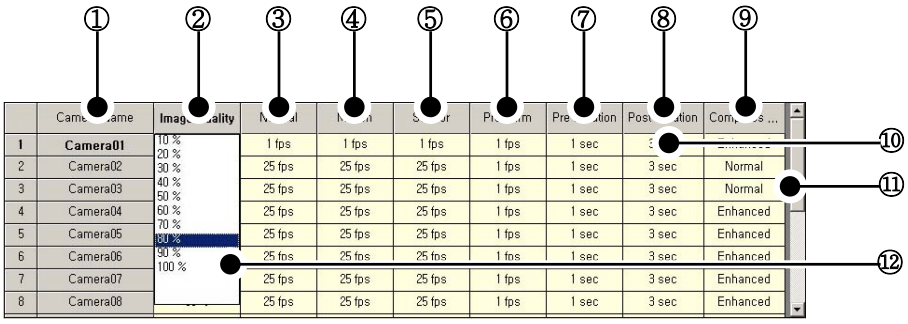
⑥ YEARLY ADD – ADD YEARLY HOLIDAY (SELECT DATE IN CALENDAR)

⑦ ADDED HOLIDAY LIST

⑧ DELETE - DELETE SELECTED HOLIDAYS FROM LIST

⑨ DELETE ALL – DELETE ALL HOLIDAYS IN THE LIST

✓ RECORDING SPEED



	Camera Name	Image Quality	Normal	Motion	Sensor	Pre Alarm	Pre Duration	Post Duration	Compress ...
1	Camera01		1 fps	1 fps	1 fps	1 fps	1 sec		
2	Camera02		25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Normal
3	Camera03		25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Normal
4	Camera04		25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Enhanced
5	Camera05		25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Enhanced
6	Camera06		25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Enhanced
7	Camera07		25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Enhanced
8	Camera08		25 fps	25 fps	25 fps	1 fps	1 sec	3 sec	Enhanced

① CAMERA NAME

② IMAGE QUALITY

③ NORMAL – FULL-TIME RECORDING SPEED

④ MOTION – MOTION BASED RECORDING SPEED

⑤ SENSOR – SENSOR BASED RECORDING SPEED

⑥ PRE ALARM – PRE-MOTION AND PRE-SENSOR RECORDING SPEED

⑦ PRE DURATION - PRE-ALARM RECORDING DURATION

⑧ POST DURATION - POST MOTION AND SENSOR RECORDING DURATION

⑨ COMPRESS – IMAGE COMPRESSION METHOD (NORMAL, ENHANCED)

⑩ APPLY ALL – APPLY TO ALL CAMERAS (RIGHT CLICK ON MOUSE)

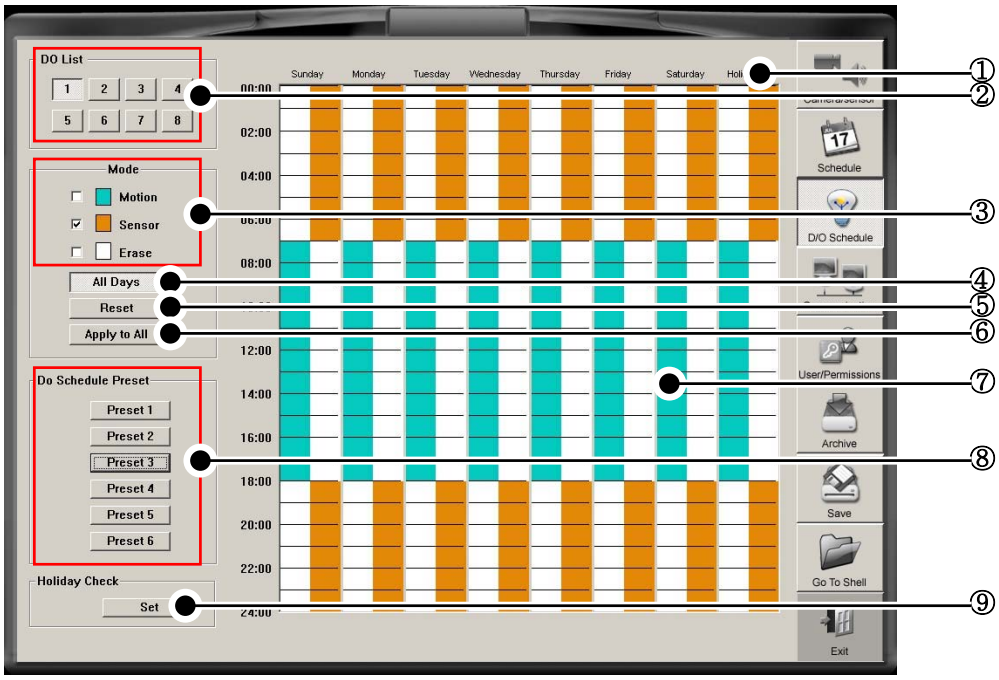
⑪ IMAGE QUALITY SELECTION

⑫ CAMERA SELECTION (DOUBLE CLICK ON MOUSE)

Pre Alarm – REFERS TO IMAGE(S) PRIOR TO RECCORDING BASED ON DETECTION.

Pre Duration – REFERS TO TIME FRAME OF PRE-ALARM RECORDING.

5.3 D/O SCHEDULE



① DAY INDICATOR (SUNDAY, MONDAY, TUESDAY, WEDNESDAY, FRIDAY, SATURDAY, HOLIDAY)

② D/O LIST – DIGITAL OUT SELECTION (1~8)

③ MODE – DIGITAL OUT BASE SELECTION (MOTION, SENSOR, ERASE)

④ ALL DAYS – SCHEDULE ALL DAYS SIMULTANEOUSLY

⑤ RESET – RESET DIGITAL OUT SCHEDULE

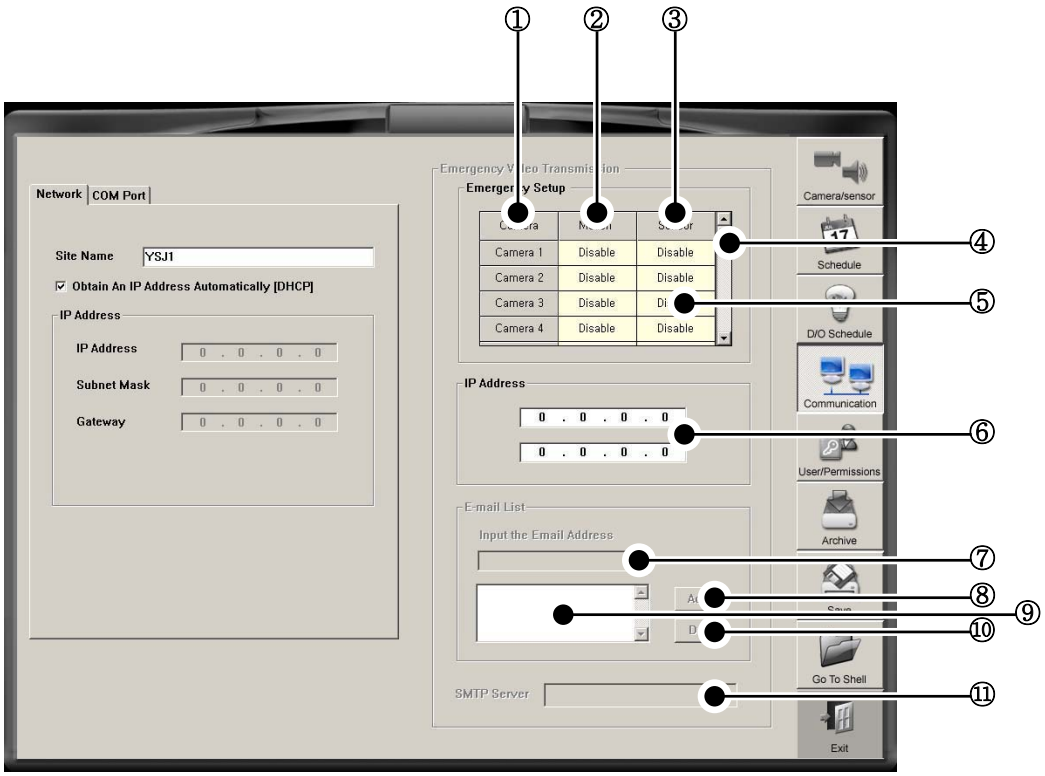
⑥ APPLY TO ALL – APPLY TO ALL CAMERAS

⑦ D/O ACTIVATION SCHEDULE SETUP (DRAG MOUSE TO SETUP)

⑧ DO SCHEDULE PRESET (PRESET1~PRESET6) – RECORDING GROUP SETUP

⑨ HOLIDAY CHECK (SET)

5.4 COMMUNICATION



① CAMERA

② MOTION

③ SENSOR

④ CHANNEL SELECTION SCROLL BAR

⑤ EMERGENCY STATE IMAGE(S) TRANSMISSION PER CHANNEL (ENABLE/DISABLE)

⑥ IP ADDRESS THE IMAGE(S) WILL BE SENT TO

⑦ INPUT THE EMAIL ADDRESS

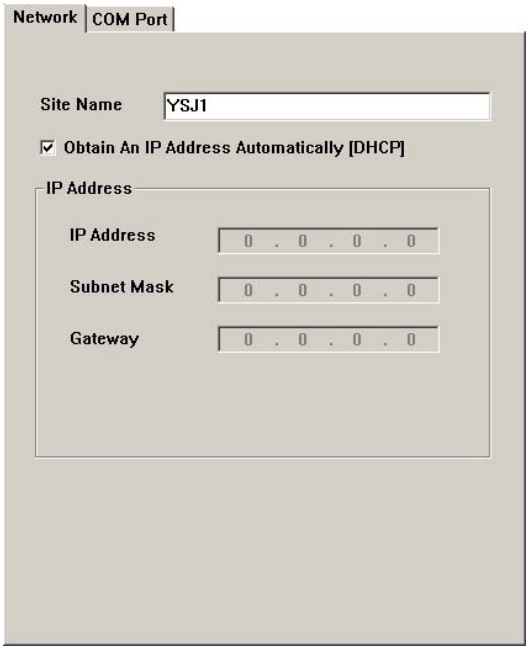
⑧ ADD EMERGENCY EMAIL ADDRESS

⑨ LIST OF EMERGENCY EMAIL ADDRESSES

⑩ DELETE – DELETE SELECTED EMAIL ADDRESS(S

⑪ SMTP SERVER – SERVER SENDING EMAIL

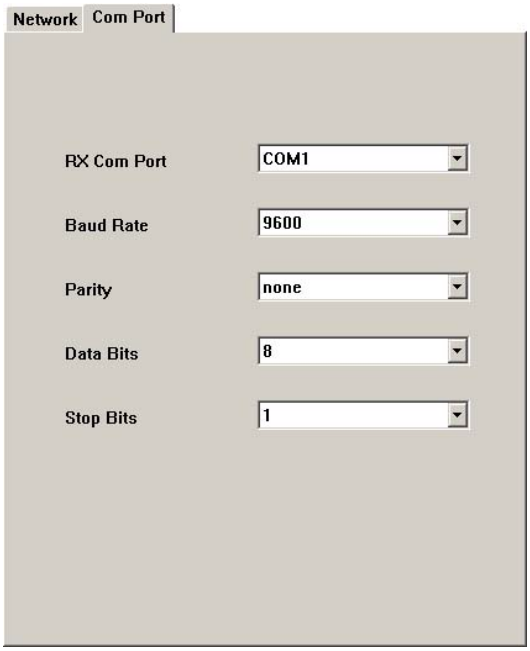
✓ NETWORK



NETWORK SETUP

- SITE NAME
- OBTAIN AN IP ADDRESS AUTOMATICALLY (DHCP)
- IP ADDRESS – ENTER STATIC IP ADDRESS
- SUBNET MASK
- GATEWAY

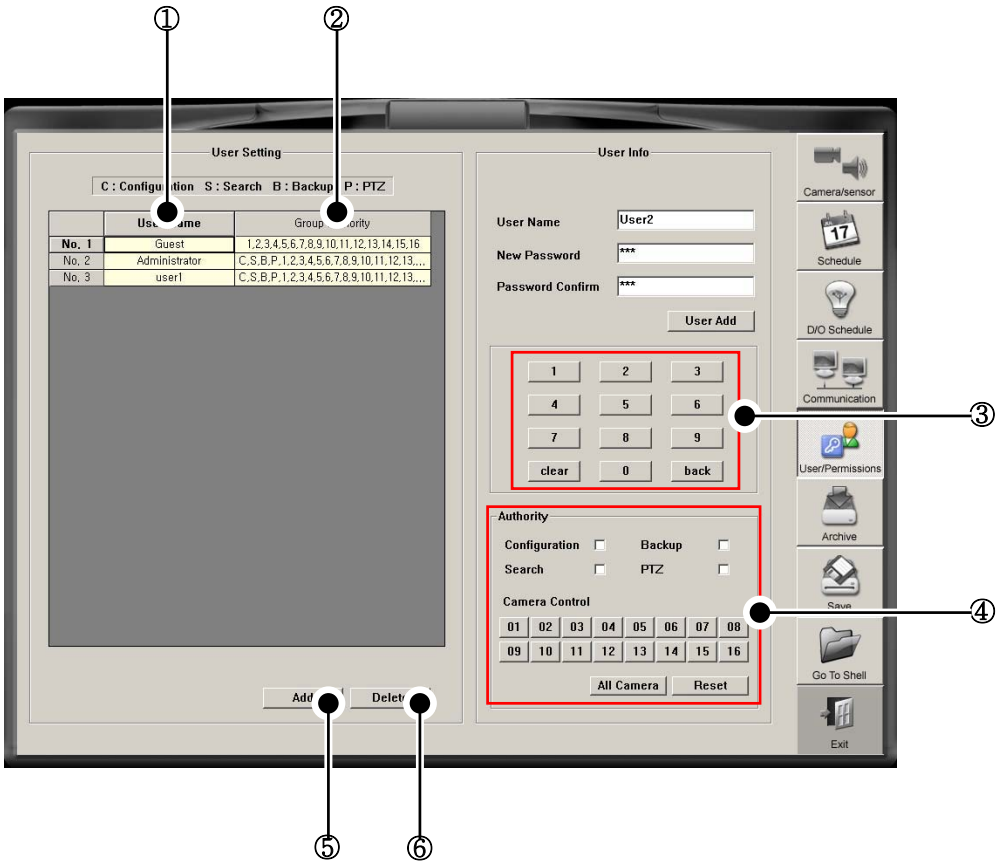
✓ COM PORT



SETUP SERIAL PORT

- RX COM PORT – (COM1, COM2)
- BAUD RATE – (2400, 4800, 9600, 14400, 19200)
- PARITY – (NONE, ODD, EVEN)
- DATA BITS – (4,5,6,7,8)
- STOP BITS – (1,1.5, 2)

5.5 USER/PERMISSIONS



① USER NAME

② GROUP AUTHORITY

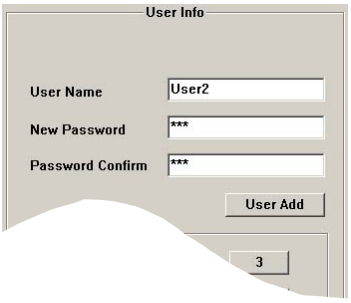
③ ENTER PASSWORD (0~9, CLEAR, BACK)

④ AUTHORITY – SETUP AUTHORITY ACCESS (CONFIGURATION, BACKUP, SEARCH, PTZ, CAMERA CONTROL, ALL CAMERA, RESET)

⑤ ADD FEATURE ACCESS TO USER

⑥ DELETE FEATURE ACCESS FROM USER

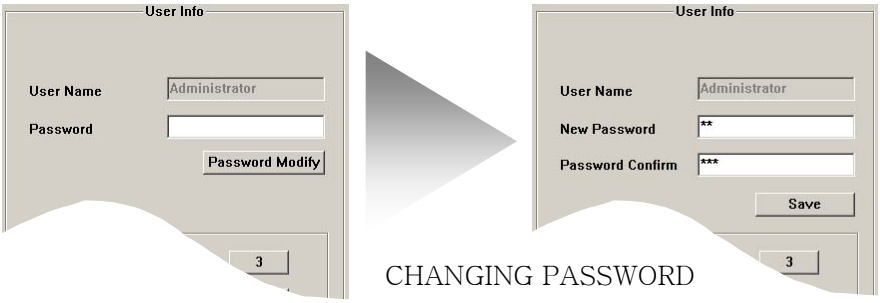
✓ USER LOG-IN



USER LOG-IN

- USER NAME
- NEW PASSWORD
- PASSWORD CONFIRM
- USER ADD

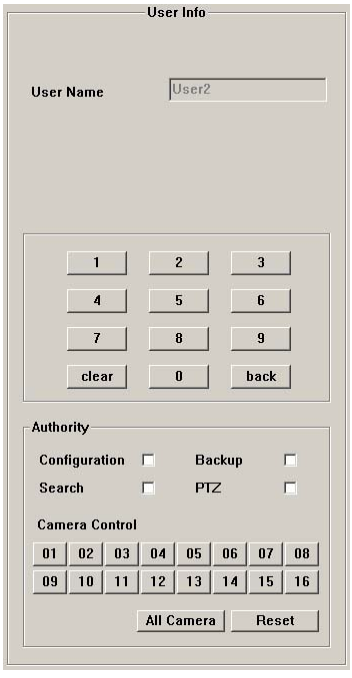
✓ CHANGING PASSWORD



CHANGING PASSWORD

- USER NAME
- PASSWORD
- PASSWORD MODIFY
- NEW PASSWORD
- PASSWORD CONFIRM
- SAVE

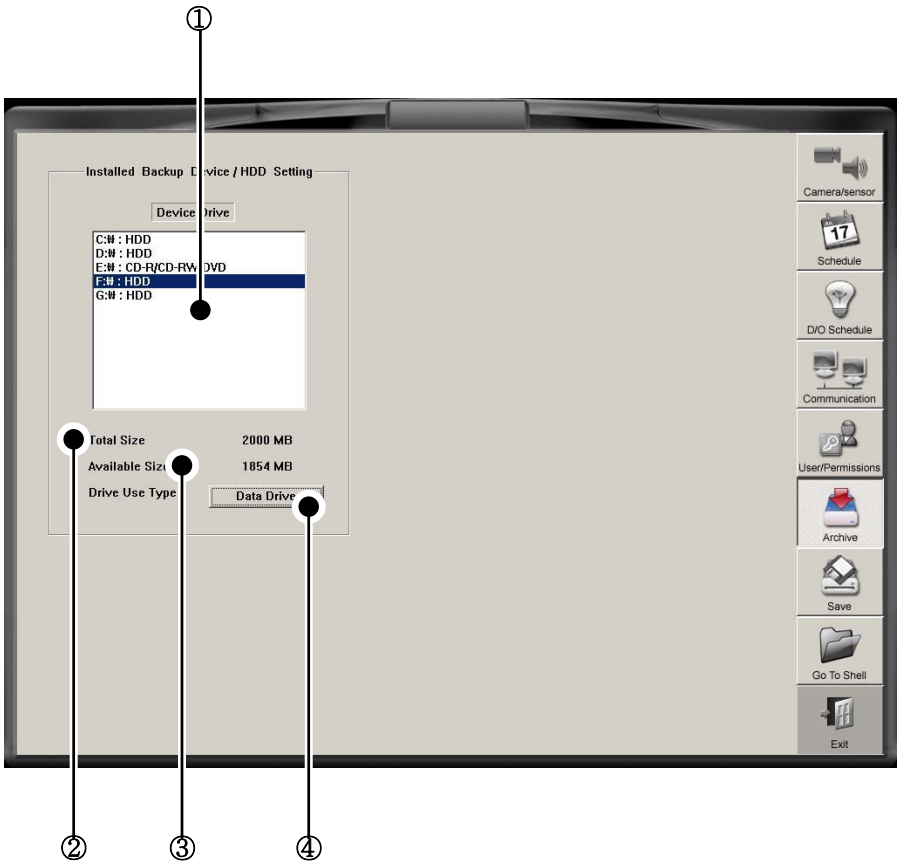
✓ USER LEVEL ACCESS



USER LEVEL ACCESS

- USER NAME
- CONFIGURATION
- BACKUP
- SEARCH
- PTZ
- CAMERA CONTROL
- ALL CAMERA
- RESET

5.6 ARCHIVE



① DEVICE DRIVE – (HDD, CD-RW, DVD-RW, AND OTHER BACKUPDRIVE)

② TOTAL SIZE – TOTAL SPACE OF BACKUP MEDIA

③ AVAILABLE SIZE – FREE SPACE OF BACKUP MEDIA

④ DRIVE USE TYPE – (DATA DRIVE/BACKUP DRIVE)

6. SPECIFICATION

TOPS-8016

CPU		Pentium IV 2.4GHz
Memory		DDR 256MBytes
LAN		10/100MByte
OS		Windows 2000 / Windows XP
Video INPUT		16 (NTSC/PAL)
Video OUTPUT		1
Video Spot OUTPUT		1
Maximum Display Speed	NTSC	480 fps
	PAL	400 fps
Maximum Recording Speed	NTSC	480 fps
	PAL	400 fps
Audio	Input	16
	Output	1
Recording Resolution		320 X 240 / 640 X 480 (pixels)
Compressed Image Size		2~8 / 3~15 /4~20 Kbytes (1 frame)
Image Compression Method		PI-CODEC (Enhanced MJPG)
Audio		Regular GSM 32kHz Mono (12S)
Alarm	Input	8
	Output	8
Detection Method		Motion, Sensor
Transmission		LAN, Modem
Power		115 / 230 V
Weight		20 kg
Dimension (mm)		43.18(W) X 17.78(H) X 45.72(D)
Environment Temperature		+5 ~ +40 ℃
Ambient Temperature in Operation		-20 ~ +60 ℃
Humidity		30 ~ 80 %RH (non-condensing)

WARRANTY

MODEL	TOPS-8016
SERIAL NO.	
DATE OF PURCHASE	
WARRANTY PERIOD	ONE YEAR FROM DATE OF PURCHASE
PLACE OF PURCHASE	

1. The following warranty service applies to all factory defects that occur during normal use of this equipment.

   1) Within One Month of Purchase: Free Repair, Replacement, Refund

   2) Within 3 Months of Purchase: Free Repair, Replacement

   3) After 3 Months to One Year : Free Repair

2. Warranty services are provided in accordance to the cause of damage as described below

<table>
<tr><th rowspan="2">Cause of Damage</th><th colspan="2">Service</th></tr>
<tr><th>Within Warranty Period</th><th>After Warranty Period</th></tr>
<tr><td>Factory defect during normal use</td><td>Free Repair</td><td rowspan="7">Repair Service Charge Apply</td></tr>
<tr><td>User misuse, misapplication or accidents</td><td rowspan="6">Repair Service Charge Apply</td></tr>
<tr><td>Unauthorized alterations and repair service</td></tr>
<tr><td>Unavoidable situations such as fire and earthquake</td></tr>
<tr><td>User abuse or tempering</td></tr>
<tr><td>Natural wear of minor parts</td></tr>
</table>

3. For any product related service, contact the office below.

* This warranty certification is not duplicable. Keep this certification in a safe place with the manual.